CLAIMS

- 1. An assembly for treating degeneration of a damaged intervertebral disk disposed between two vertebrae, the assembly being characterized in that it comprises:
- cells (16) optionally analogous to those of the intervertebral disk, and suitable for being implanted in said disk; and
 - an intervertebral implant (10) comprising:
 - an intervertebral spacer (12) for placing
- 10 between said vertebrae in order to limit the stresses applied to said disk; and
 - fastener means (14) for fastening said spacer to said vertebrae.
- 2. A treatment assembly according to claim 1, characterized in that said cells (16) are as obtained by being taken from an intervertebral disk of the patient and culturing said cells as taken.
- 3. A treatment assembly according to claim 1, characterized in that said cells (16) are such as obtained by taking autologous adult stem cells from the bone marrow of the patient and by culturing said cells.
- 4. A treatment assembly according to claim 1, characterized in that said cells (16) are such as obtained by taking embryonic stem cells and by culturing said cells.
- 5. A treatment assembly according to any one of claims 1 to 4, characterized in that it further comprises injector means (20) for injecting said implantable cells (16) into the intervertebral disk of the patient.
- 6. A treatment assembly according to any one of claims 1 to 5, characterized in that said spacer (12) of said intervertebral implant comprises a central portion (26)

and two end portions (28, 30), each end portion having a groove (32, 34) defined by two limbs (29, 31), said grooves being suitable for receiving the spinus process (E_1, E_2) of a vertebra (V_1, V_2) .

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- 7. A treatment assembly according to claim 6, characterized in that said central portion (26) of the spacer (12) is elastically deformable.
- 10 8. A treatment assembly according to claim 6 or claim 7, characterized in that said fastener means (14) for fastening the intervertebral implant comprise at least one strip (14) securable to said spacer (12) and surrounding the processes (E_1, E_2) of said vertebrae so as to hold said processes in said grooves (32, 34).